Program Research Project

MIDDLE EASTERN ENERGY SECURITY: SYNCHRONIZING DOMESTIC AND FOREIGN POLICY

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U.S. interests in the Middle East are numerous, yet the long-standing vital interest of energy security trumps them all. Increased global competition for limited Middle Eastern energy resources threatens this vital interest. The U.S. approach to Middle Eastern energy security has flaws because of a lack of synchronization between domestic and foreign policy. This paper first discusses challenges presented by supply, demand and the myths surrounding oil independence. It then addresses three central problems with domestic energy policy: the absence of a unified energy policy, a culture of profligacy and unlimited consumption, and the need to transform the U.S. transportation sector. A discussion follows of two central problems with U.S. foreign policy: the militarization of foreign policy and a failure to address the root causes of political instability in the region. Finally, the paper recommends remedies for the aforementioned flaws with a focus on exploiting a “smart power” approach to addressing the root causes of political instability in the region.

MIDDLE EASTERN ENERGY SECURITY: SYNCHRONIZING DOMESTIC AND FOREIGN POLICY

U.S. interests in the Middle East are numerous,[1] yet the long-standing vital interest of energy security trumps them all.[2] Increased global competition for limited Middle Eastern energy resources threatens this vital interest. The U.S. approach to Middle Eastern energy security has flaws because of a lack of synchronization between domestic and foreign policy. This paper first discusses challenges presented by supply, demand and the myths surrounding oil independence. It then addresses three central problems with domestic energy policy: the absence of a unified energy policy, a culture of profligacy and unlimited consumption, and the need to transform the U.S. transportation sector. A discussion follows of two central problems with U.S. foreign policy: the militarization of foreign policy and a failure to address the root causes of political instability in the region. Finally, the paper recommends remedies for the aforementioned flaws with a focus on exploiting a "smart power" approach to addressing the root causes of political instability in the region.

U.S. strategic interests in Middle Eastern energy security - access to a reliable and affordable supply of oil - are disproportionate to the percentage of oil currently imported from the region.[3] Only three Middle Eastern countries, Saudi Arabia, Iraq, and Kuwait, are in the top ten exporters of oil to the U.S. and only Saudi Arabia is in the top five.[4] The disproportionate interest of the U.S. in Middle Eastern oil exists because five Middle Eastern countries hold an estimated 58% of the world's proven oil reserves.[5] Increased global demand for oil is depleting all other reserves, spurring global competition for geologically attractive Middle Eastern oil.[6] Future U.S. dependence on Middle Eastern oil will inevitably increase not lessen.

The U.S. transportation system's dependence on foreign oil makes Middle Eastern energy security a vital strategic interest. With 4.6% of the world's population, the U.S. currently consumes 25% of the world's oil.[7] Transportation accounts for 68% of U.S. oil consumption and oil represents 96% of all fuels used for transportation.[8] Despite uninformed assertions to the contrary, U.S. independence from foreign oil is an impossibility for at least the next two decades.[9] The challenge is managing U.S. dependence on oil while transitioning the economy to one less reliant on petroleum.

Supply

"Peak oil" is the point at which global oil production can no longer increase to meet global demand, leaving declining reserves. Most studies estimate that global "peak oil" will occur before 2040, with a minority suggesting a later date.[10] Were global peak oil to occur in the near future, followed by a sharp decline in oil production (and the absence of alternative fuels to sustain U.S. transportation needs), a perfect storm would result: increased prices from competition would result in severe economic hardship and the potential for conflict. While no country would be immune to these consequences, the U.S. is highly vulnerable to any price shock because it is so heavily dependent on oil.[11] Witness the rise of oil prices in 2008 to $150 per barrel as a major factor in the current recession.

The U.S. Energy Information Agency (EIA), reports that most non Middle Eastern countries are at or near peak conventional oil production.[12] While the United States is currently the third largest oil-producer in the world, U.S. output peaked in 1970 and has since declined steadily.[13] Diminishing reserves and increased global competition for Middle Eastern oil makes access to Middle Eastern oil reserves a strategic imperative.

There is considerable debate about whether global energy supply can satisfy increasing demand. Despite widespread debate, the EIA estimates that global oil supply in 2030 will somehow match global oil demand at 118 million barrels per day.[14] Most energy professionals believe this is highly unrealistic.[15]

Demand

Affordable oil has underpinned American economic growth since World War II. Continued access is at risk due to the specter of peak oil and increasing global energy demand. Since 1960 global oil consumption has grown four fold to 86 million barrels a day.[16] The EIA estimates global consumption will rise to 118 million barrels per day by 2030.[17] Rising global demand poses a significant strategic challenge for satisfying enormous U.S. dependency on oil. During the Arab oil embargo of 1973, the U.S. imported 35% of its oil needs. In 2009, the U.S. imported 66% of its oil.[18]

Industrialized countries account for approximately two-thirds of global energy consumption.[19] These mature economies are expected to grow at a relatively manageable rate of approximately 35% between 2001 and 2025.[20] Developing countries like China and India represent 33% of the world population and projections indicate they may consume a startling 50% share of global energy by 2025.[21] By 2025, the U.S., China, and India could consume 75% of global oil production. The strategic imperative for each of these countries to ensure access to Middle Eastern oil presents the very real potential for international conflict.

Energy Independence

A popular, but uninformed, proposal for resolving supply and demand challenges is “energy independence” through a host of initiatives aimed at eliminating U.S.

dependence on foreign oil. Given inevitable resistance of embedded interests in the oil and transportation industries and the long lead times required to develop and deploy transformational technologies, it is not realistic to expect independence from oil in the next two decades.

A recent U.S. Government Accountability Office report concluded "[k]ey alternative technologies currently supply the equivalent of only about 1% of U.S. consumption of petroleum products, and the Department of Energy (DOE) projects that even under optimistic scenarios, by 2015 these technologies could displace only the equivalent of 4% of projected U.S. annual consumption. Under these circumstances, an imminent peak and sharp decline in oil production could have severe consequences, including a worldwide recession. However, these technologies could displace up to 34% of projected U.S. annual consumption of petroleum products in the 2025 through 2030 timeframe. The level of effort dedicated to overcoming challenges to alternative technologies will depend in part on the price of oil; without sustained high oil prices, efforts to develop and adopt alternatives may fall by the wayside."[22]

Shortcomings in Domestic Energy Policy

There are two central problems with domestic energy policy: no unity of purpose aligning it with foreign policy objectives; and a culture of profligacy and unlimited consumption that blinds Americans to the need to reduce consumption.

A. The Need for a Unified Domestic Energy Policy. In the context of energy security, one of the most significant problems with U.S. foreign policy is U.S. domestic policy. Retired General James Jones, the President's national security advisor, recently stated, "[f]or over 40 years, the U.S. has had an inadequate, contradictory and

shortsighted approach to our energy future."[23] The Council on Foreign Relations (CFR) recently reported "[t]he U.S. has largely continued to treat energy policy as something that is separate and distinct - substantively and organizationally – from foreign policy."[24] These shortcomings have resulted in the failure to exploit the most effective tool in the U.S. kitbag for influencing Middle Eastern energy security: domestic energy policy. The resultant energy policy is ineffective and detrimental to U.S. national security.

Besides the lack of synchronization in domestic and foreign policy development, there is no unity of purpose in the federal government's approach to energy policy. Fifteen or more federal agencies, commissions or councils have responsibility and oversight for energy issues.[25] Although the Secretary of Energy is part of the President's cabinet, until recently, no one within the executive branch had the responsibility or authority to coordinate interagency efforts. President Obama's appointment of Carol Browner as "Energy Coordinator" is a step in the right direction, but published accounts suggest she does not have enough authority to effect meaningful change.[26] A recent GAO report concluded, "[f]ederal agency-sponsored studies have expressed a growing concern over the potential for peak oil, and officials from key agencies have identified options for reducing the uncertainty about the timing of a peak in oil production and mitigating its consequences. However, there is no strategy for coordinating or prioritizing such effort."[27] The problem is apparent; failed leadership has placed the nation at risk.

B. Crisis of Profligacy. In his book, *The Limits of Power,* Andrew J. Bacevich posits an American "crisis of profligacy."[28] Critical of American culture, political and military leadership, Bacevich approaches the issue of energy security by asking: What

is freedom today? What costs does the exercise of freedom impose and who pays? He concludes that since the 1960's, the American reinterpretation of freedom -- an appetite of unlimited consumption and self-indulgence -- has negatively transformed U.S. society and culture. Unlimited energy appetites have increasingly required that Americans unnecessarily submit to dependence on foreign resources. Bacevich asserts, "[w]hether the issue at hand is oil, credit, or the availability of cheap consumer goods, we expect the world to accommodate the American way of life."[29] Identifying the nexus between domestic demand and Middle Eastern energy security Bacevich adds, "[t]he resulting sense of entitlement has great implications for foreign policy. Simply put, as the American appetite for freedom has grown, so too has our penchant for empire . . . as illustrated by the Bush administration's efforts to dominate the energy-rich Persian Gulf, empire has seemingly become a prerequisite of freedom."[30]

During the 2000 presidential campaign, candidate George W. Bush criticized the Clinton administration for allowing U.S. imports of foreign oil to reach 56% of U.S. consumption.[31] By the end of the Bush administration, U.S. imports of foreign oil had risen to 66% of U.S. consumption.[32] The Bush administration's energy policy acknowledged the need for conservation and greater energy independence, yet emphasized production over reduced consumption. The Bush Administration is not the first to acknowledge the importance of energy conservation, but fail to make progress in achieving it. Despite four decades of declining U.S. oil production, increased reliance on foreign oil, crippling consequences of price shocks in 1973, 1979 and 2008, and the ever-increasing cost, in blood and treasure, of a misdirected Middle Eastern foreign

policy – five successive Presidents have failed to address energy security in a thoughtful and sustained manner.

Shortcomings in Foreign Policy

There are two central problems with U.S. foreign policy in the Middle East: increased militarization and a failure to address the root causes of political instability.

A. Militarization of U.S. Foreign Policy. In the immediate wake of 9/11, the Bush administration published its National Security Strategy, reversing decades-old themes of U.S. foreign policy defined by containment, collective security, multilateralism, and détente to adopt a strategy of preventative war, unilateralism, and regime change. Under the leadership Donald Rumsfeld, the Department of Defense aggressively marginalized the State Department in diplomatic matters and the CIA in intelligence gathering and analysis, thereby empowering the Pentagon's ability to influence foreign policy.[33] The use of force was no longer the choice of last resort, but rather the panacea for all America's post 9/11 challenges. As Mark Twain once said, "To a man with a hammer, everything looks like a nail."[34] In its haste to respond to the unprecedented challenges presented by 9/11, the Bush administration committed to a military solution before it identified the problem. Despite eight years and a heroic military and civilian effort, America has few strategic victories to show for its efforts in Iraq and Afghanistan. In fact, U.S. occupation of both countries has increased the level of political instability across the Middle East to unprecedented levels.

Both sides of the political aisle recognize the increased militarization of U.S. foreign policy. To the surprise of many, Secretary of Defense, Robert M. Gates shared this opinion while a member of the Bush Administration. In July 2008, Secretary Gates

stated that the creeping "militarization" of America's foreign policy is not an entirely unreasonable sentiment.[35] He added, "when it comes to America's engagement with the rest of the world . . . it is important the military is . . . in a supporting role to civilian agencies. Our diplomatic leaders . . . must have the resources and political support needed to lead American foreign policy."[36] The implication was that an increased militarization of foreign policy ignores that a military solution cannot eliminate the root causes of political instability in the Middle East.

B. Root Causes of Political Instability in the Middle East. Key Middle Eastern oil suppliers such as Saudi Arabia, Iraq, and Iran, among others in the region, are experiencing rising political instability. The implications are varied yet all pose a combination of economic, political and security challenges for U.S. policy in the region. Reversing political instability is key to ensuring that Middle Eastern governments are willing and able to facilitate U.S. access to oil.

1. Economic Stagnation: Much of the region's economic stagnation derives from a weak integration into the global economy. Despite vast oil wealth, per capita income in the region is close to what it was in 1980.[37] The combination of the rentier states, authoritarian governance, sluggish reform, regional conflict, and little private investment has stalled economic growth. These undermine the legitimacy of the regimes and lead to unemployment, disenfranchisement, and increased interest in radical Islam.

2. Rising Poverty: No meaningful middle class exists in the Middle East, only a widening divide between the rich and the poor. Three key factors drive the rise in poverty: unemployment, job creation mostly in the low-wage informal sector and falling real wages in the formal sector urban employment.[38] The implications for the U.S. are

that poverty and unemployment create a politically volatile region providing easy recruits for terrorists and opponents to existing regimes.

3. Population Growth and Youth: Forecasts expect the population of the Middle East to reach approximately 600 million by 2025, roughly six times more people than in 1950.[39] Such growth poses numerous economic challenges, including food, water, job and housing scarcity.[40] The success of radical Islamic groups is "nourished by the deep despair of huge numbers of young Middle Eastern men, two-thirds of whom are below the age of 30, half of whom are younger than 20, and 40 percent of whom have yet to reach their 15th birthday."[41]

4. Rapid Urbanization: The fact that approximately half of Middle Eastern citizens reside in cities with wholly inadequate infrastructures aggravates population growth and rising unemployment.[42] The regions rapid urbanization erodes governments' legitimacy in three ways: (i) infrastructure and government budgets are strained; (ii) the process of migrating from rural to urban settings is disorienting for migrants, providing fertile recruiting ground for Islamic militants; and (iii) urban discontent is more politically volatile and dangerous than rural discontent.[43]

5. Rentier Effect: A rentier state is one that derives a large portion of its revenue from external rents. Author Michael Ross asserts that the taxation effect, spending effect and group formation effect constitute the rentier effect.[44] Taxation effect is when a country derives sufficient revenue from oil that it is less likely to tax its population and the public is less likely to demand accountability from and representation in their government.[45] Spending effect is when oil wealth leads to greater spending on patronage, which in turn dampens latent pressures for democratization.[46] Finally, group

formation effect is when oil wealth leads authoritarian governments to use their largesse to prevent the formation of social groups that are independent from the state and inclined to demand political rights.[47]The U.S. as a result is promoting democracy in a region whose governments are wedded to policies and a culture that are adverse to embracing democratic ideals.

6. Failed Governments: In his paper addressing the socio-economic roots of radicalism, Alan Richards asserts, "[t]he incompetence and authoritarianism of many Middle Eastern governments fosters Islamic radicalism. These governments are overwhelmingly unelected, unaccountable, corrupt and widely despised by their citizens."[48] Regional leaders for decades have failed to produce meaningful improvements in education, the economy, job opportunity, healthcare, and national dignity. The ruling elite use untold amounts of oil revenue to perpetuate their own power and security while millions of people fall deeper into poverty and the region further destabilizes. The implications for the U.S. are the absence of trustworthy intermediaries to implement strategic policy and/or to convey financial aid or investment with any confidence of proper management.

7. Nationalization of Oil Companies: In the 1970s, many regional oil-producing countries nationalized investments in international oil companies. By the early 1980's, and for the next 25 years, a significant surplus of capacity resulted in the industry pulling back investment at all levels.[49] As a result, the implications for the U.S. are two-fold. First, the U.S. has to deal with governments rather than corporations, making it much more challenging to influence the region in ways that advance energy security. Second, rather than being motivated by profits, governments have numerous agendas that can

frustrate the U.S.'s ability to influence capacity related infrastructure investments, production levels and the price of oil.[50]

Recommendations for Improving Middle Eastern Energy Security

Managing Middle Eastern energy security requires a two-prong approach that addresses both domestic and foreign policy. Ironically, some of the U.S.'s strongest leverage rests with its own domestic energy policy. A common theme with U.S. energy security over the past four decades has been "more" – increasing production to satisfy America's unlimited appetite for oil. The theme must change to "less" – reducing demand through conservation, efficiency, and developing the next generation of transportation technologies and fuels to displace oil. The recommendations that follow address domestic and foreign policy separately, but both aim to better manage U.S. dependence on Middle Eastern oil.

Domestic Policy

A. Reverse Profligacy: Reversing the crisis of American profligacy is one of the most important actions the U.S. can take to improve Middle Eastern energy security. It has the potential for broad-reaching positive effects at home and in the Middle East at a fraction of the cost and time of alternatives. Reversing profligacy is largely an undertaking to change consumer behavior that will reduce demand and therefore dependence on oil. It will have the significant second-order effect of accelerating the transformation of the U.S. transportation sector by creating an enormous market for next-generation transportation technology and associated goods and services.

One of the most powerful catalysts for change in America is consumer behavior. As such, progress is more likely to come from the leadership of Madison Avenue and

Wall Street than The White House and Treasury. While both the government and private sector must play a role, the private sector (citizens and corporations) must lead. Former Vice President Al Gore accomplished more in furthering his climate change agenda as citizen Gore through a single movie, *An Inconvenient Truth,* than he did in 24 years in politics. For better or worse, the average citizen places more weight on the voice of Hollywood than that of Washington. Politics and science aside, An *Inconvenient Truth* put environmental awareness in vogue and played an important role in directing the attention of the capital markets to green investing.

Reversing profligacy requires that Americans accept the reality that a culture of unlimited consumption threatens energy security and national security. Americans must accept that solutions to U.S. energy security problems do not all rest with imposing the U.S.'s will upon the Middle East, but rather with reducing demand for oil here at home. Reversing profligacy requires Americans to adopt a fundamentally different outlook on the value of efficiency and more importantly, on reducing consumption.

Increased efficiency and reduced consumption are the cheapest and most expeditious ways to reduce demand for oil. There are numerous examples where efficiency has had immediate and lasting improvements in reducing demand. A recent example occurred in 2008 in the wake of record oil prices. In response to $150 dollar per barrel oil, consumption decreased approximately 5% and world oil prices plummeted to less than $50 per barrel.

Reducing consumption is imperative. A book recently published by an international team of experts in economics, technology and the environment titled, *Jevons Paradox and the Myth of Resource Efficiency Improvements*, provides evidence

for the 143-year-old theory, applying it to modern systems and cogently arguing that an understanding of the theory is imperative to a prudent energy policy.[51] Jevons paradox states that improved efficiency will actually lead to increased consumption as long as the demand for consumption remains unlimited.[52] For instance, the increased fuel efficiency of vehicles in the 1980s and 90s led to an increase in miles driven per car as people desired to drive more due to the savings.[53] The paradox suggests improvements in efficiency without a corresponding decrease in consumption will defeat transportation sector transformation.

Reversing profligacy and reducing consumption run the risk of failure because changing consumer behavior and long-standing cultural norms will face stiff resistance in the form of apathy and embedded interests. Apathy due to ignorance or indifference will be difficult to overcome if oil prices fall and the financial incentive to change spending behavior no longer exists. Embedded commercial interests that benefit from unlimited consumption will lobby hard for status quo. Politicians that rely on the same powerful commercial interests to fund their campaign war chests will be reluctant to embrace change at the risk of losing financial support.

B. Transform Transportation Sector: The U.S. transportation sector is 96% reliant on petroleum-based fuels and it is responsible for 66% of all U.S. oil consumption – or 16.5% of global oil production. The disproportionate amount of oil consumed by the transportation sector requires a sustained commitment to rapidly develop and deploy next-generation transportation technology and alternative transportation fuels to manage U.S. dependence on oil for the next two decades. This transition will be an

enormous undertaking, but will allow the U.S. economy to do what it does best – compete and innovate.

The development, manufacturing, deployment and servicing of next-generation technology will create hundreds of thousands of new jobs across all modes of transportation and will significantly improve the environmental impact of existing transportation technology. The current financial crisis across the automobile manufacturing sector presents an opportunity to rethink strategy and competitiveness of the status quo. A thought provoking study by the Rocky Mountain Institute, co-funded by the Pentagon and titled *Winning the Oil Endgame*, points out that major technological transformation takes 12-15 years to go from 10% to 90% adoption, but that the key is getting to the first 10% as rapidly as possible.[54] The study adds, as an illustration, that America rapidly retooled industry in World War II when the U.S. automakers switched in six months from making four million light vehicles per year to making tanks and planes.[55]

Such transformation will require massive federal investments in R&D and establishment of a regulatory scheme to incentivize entrepreneurs, industry and capital markets. Eight years in Iraq and Afghanistan have cost the American taxpayer nearly a trillion dollars with little strategic advantage to show for it. Spending the same trillion dollars over eight years on launching the next-generation of transportation technology would have certainly produced a better return on investment.

In addition to the risk of failure due to apathy and embedded commercial interests as discussed above, transforming the transportation sector also risks failure because it may not progress quickly enough, depending on when global peak oil occurs,

to have a meaningful affect on energy security. Obstacles such as falling gasoline prices, long life cycles of existing vehicles, the absence of a proven replacement technology and the long lead times to manufacture and deploy next generation vehicles and associated infrastructure may stall transformation.

C. Synchronizing Domestic and Foreign Policy. The absence of a synchronized energy strategy is jeopardizing the effectiveness of U.S. foreign policy and national security. The DOE has echoed, "there is no formal strategy to coordinate and prioritize federal programs and activities dealing with peak oil issues – either within DOE or between DOE and other key agencies".[56] Unity of purpose will result in unity of effort and will require sustained Presidential and Congressional leadership. President Obama's appointment of Carol Browner as "Energy Coordinator" appears to be a step in the right direction, but published accounts suggests this position lacks the authority to effect unifying change.[57] It is imperative that the President appoint a Director of National Energy Affairs (DNEA). Much like the recently created Director of National Intelligence, the DNEA would be the President's, the National Security Council's and National Economic Council's chief advisor on energy affairs. The DNEA would provide oversight of the numerous federal agencies involved in energy matters and be responsible for the implementation of all aspects of energy policy, at home and abroad. Unity of leadership is necessary to synchronize policy efforts. Synchronization between domestic and foreign policy is necessary to focus on a more strategic and comprehensive long-term approach to energy security. Although the federal government has a critical role in directing energy policy, it is incapable of solving all U.S. energy security challenges itself. Thus, in addition to synchronizing federal efforts, the DNEA should foster new

relationships with the private sector. The focus should be on providing public-private partnerships, grants, tax incentives, low interest loans, as well as creating a favorable regulatory environment that marshals private-sector R&D and capital necessary to deploy the next generation of transportation technology.

Attempts to unify energy leadership may be ineffective because appointing a DNEA may face friction from other senior government officials for budgetary, territorial, or other reasons. Moreover, synchronizing the efforts of multiple organizations with competing interests in the absence of an established framework for planning and implementing strategy is likely to present significant obstacles.

Foreign Policy

A. Prioritize Security & Stability over Democracy. President Obama made it clear upon taking office that diplomacy would trump military action as the main instrument of U.S. foreign policy. While this change in strategy from the Bush administration is encouraging, it will best serve U.S. interests in the Middle East if there is a corresponding change in strategic priorities, placing security and stability over the promotion of democracy. This is not to say promotion of democracy should be abandoned, but a more nuanced, long-term approach is necessary to exploit smart power as the vehicle for establishing the security and stability and later facilitating democracy. There is no expert consensus regarding whether foreign intervention can establish democracy in nations, like those across the Middle East, that have poor governance, absence of accountability and weak institutional infrastructures.[58] Without popular support, imposition of democracy is doomed to fail. For it to survive, strong governance, strong institutions and accountability must exist. Billions of dollars of aid

cannot a democracy make; to the contrary, they are likely to create further instability by funding corruption and disenfranchising the masses that do not have access to the spoils of foreign aid. The permissive environment that accompanies security and stability facilitates the deployment of the full range of U.S. interagency and international organizations that are largely ineffective in non-permissive environments. It also allows a target nation to look beyond day-to-day survival to embrace democratic ideals and build institutions.

The risks associated with this transition are low relative to other options, but it may be misinterpreted or used against the U.S. as an example of compromised ideals or self-promotion. To reinforce that the promotion of democracy has not been abandoned, strategic communication efforts must accompany such a policy shift.

B. Use Smart Power to Address Root Causes of Political Instability. America's reputation and influence in the Middle East has suffered greatly over the last four decades with the increased militarization of foreign policy, punctuated by the wars in Afghanistan and Iraq.[59] Recent studies have reported that there is no region of the world where U.S. standing has fallen further or more precipitously than in the Middle East.[60] To restore America's reputation, influence, and ability to ensure Middle Eastern energy security, the U.S. should embrace a smart power approach to Middle Eastern foreign policy.

Smart power is relatively new to the lexicon of foreign and domestic policy and has received increased attention over the past two years.[61] Smart power is the synthesis of hard power – the use of military force; and soft power – the ability to shape the preferences of others without threat, coercion, or the use of force. Two leading

foreign policy commentators, Joseph Nye and Richard Armitage define smart power as "neither hard nor soft – it is the skillful combination of both."[62] Secretary of State Hillary Clinton opined the U.S. "must use smart power, the full range of tools at our disposal – diplomatic, economic, military, political, legal, and cultural . . . [w]ith smart power, diplomacy will be at the vanguard of our foreign policy.[63] Nye and Armitage, recently explained that smart power is an approach that acknowledges the necessity of a strong military, but also invests heavily in strong alliances and institutions to expand American influence and establish the legitimacy of American policies and actions. It places a high value on improving global good as a means of reconciling the U.S.'s unmatched military power with the rest of the world's needs, interests and values.[64]

B. While maintenance of U.S. military supremacy is imperative and military power must continue to play an important role in Middle Eastern foreign policy, the past seven years in Afghanistan and Iraq have demonstrated that the strategic use of force is not the most effective tool for fighting a war of ideas and public opinion. To improve Middle Eastern energy security and the chances for success with ongoing operations in the region, the U.S. must formulate a smart power strategy focused on addressing the most pressing root causes of political instability in the Middle East. The strategy must take into consideration the negative legacy (both real and perceived) of U.S. foreign policy in the region.

The risks associated with implementing a smart power strategy rest with the time and expense of transitioning away from the reliance on the U.S. military for executing strategies that are traditionally executed by agencies such as the State Department and USAID. A significant amount of time and resources is required to audit U.S. agencies

with soft power resources to properly fund, man and equip them to work independently of the military. Diplomacy and other smart power efforts may not be enough to overcome the deep erosion of state authority throughout the Middle East. To be most effective, a mart power strategy should focus simultaneously on the two parties that are capable of effecting the most meaningful change in the Middle East: (i) existing autocratic regimes and (ii) the youth.

1. Autocratic Regimes. A U.S. strategy that assures continued access to Middle Eastern energy requires the ability to conduct business with stable governments. To this end, the U.S. must facilitate aid and foreign investment to existing regimes to address the root causes of political instability discussed above. This requires a long-term commitment aimed at educating existing regimes that, short of a campaign for democracy, their best chance for stability and self-preservation comes from demonstrating their legitimacy. Economic reform, educational opportunities, job creation, infrastructure development, transparency, accountability, and meaningful distribution of wealth can achieve legitimacy. Legitimacy will result in the youth of the region embracing reform and opportunity rather than the alternative of migration, crime, and radical Islam.

2. Youth. Political instability most negatively affects the region's youth. The collective decision-making of U.S. policy makers and existing regimes in managing instability will define success or failure of any strategy. Thus, any strategic policy must take into consideration how it is received by the youth of the region. Globalization and the information age have created the most well-informed generation of Middle Eastern youth in history. They distrust their governments and have great expectations for

reform. As the opinion leaders of today and the future, they have force in numbers that can be a strategic vehicle for positive change.

Conclusion

While the U.S. can and should work towards energy independence, it is not likely to achieve it any time soon. In the interim, the U.S. is dependent on the Middle East for maintaining energy security and therefore must protect its vital interest in the region. To this end, the U.S. must establish unity of purpose and unity of effort in synchronizing foreign and domestic energy policy. Success at home requires a sustained effort of conservation and the transformation of transportation sector. In the Middle East, success requires reprioritizing security and stability over democratization, and it demands that the U.S. address political instability with its full range of smart power resources.

Endnotes

[1] What countries constitute the Middle East is not universally agreed upon. For purposes of this paper, the Middle East consists of: Morocco, Algeria, Tunisia, Libya, Egypt, Sudan, Lebanon, Isreal, Palestine, Jordan, Syria, Iraq, Saudi Arabia, Yemen, Oman, United Arab Emirates, Qatar, Bahrain, Kuwait, Iran, Afghanistan, and Pakistan.

[2] Other key U.S. interests in the region include, but are not limited to: promoting democracy and human rights, establishing the security and political independence of Iraq and Afghanistan, countering terrorism, stopping the spread of weapons of mass destruction, ensuring the stability of friendly regimes, and ensuring Israel's security. See, Nora Bensahel and Daniel Byman, "The Future Security Environment in the Middle East: Conflict Stability and Political Change", *RAND Corporation* (2004) : 2-6.

[3] "National Security Consequences of U.S. Oil Dependency," *Council on Foreign Relations*, Independent Task Force Report No. 58, (2006) : 29. The top five exporting countries accounted for 64% of United States crude oil imports in February 2009 while the top ten sources accounted for approximately 84% of all U.S. crude oil imports. The top sources of US crude oil imports for February 2009 were Canada (1.913 million barrels per day), Mexico (1.219 million barrels per day), Saudi Arabia (1.135 million barrels per day), Venezuela (.962 million barrels per day), and Angola (0.671 million barrels per day). The rest of the top ten sources, in order, were Iraq (0.519 million barrels per day), Nigeria (0.457 million barrels per day), Brazil (0.365 million barrels per day), Kuwait (0.251 million barrels per day), and Ecuador (0.243 million barrels per day). See, U.S. Energy Information Agency, *Crude and Total Petroleum Imports Top 15 Countries*, (Washington, D.C. US EIA, April 14, 2009); available from: http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html; Internet; accessed 24 April 2009.

[4] U.S. Energy Information Agency, *Crude and Total Petroleum Imports Top 15 Countries*, (Washington, D.C., US EIA, April 14, 2009); available from: http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html; Internet; accessed 24 April, 2009.

[5] In 2007, Iraq, Iran, Kuwait, Saudi Arabia, and the United Arab Emirates held 58% of all proven oil reserves. Proven oil reserves are those generally taken to be quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. See, "BP Amoco Statistical Review of World Energy 2008"; available from: http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/downloads/pdf/oil_table_proved_oil_reserves_2008.pdf; Internet; accessed 21 April 2009.

[6] Middle Eastern oil reserves are geologically attractive because of the high quality of the oil and relative ease with which it can be extracted from the earth versus the more environmentally destructive and energy/cost/time intensive alternatives of offshore drilling, tar sands and oil shale.

[7] "National Security Consequences of U.S. Oil Dependency," *Council on Foreign Relations*, Independent Task Force Report No. 58, (2006) : 4.

[8] "National Security Consequences of U.S. Oil Dependency," : 13.

[9] See, Robert Bryce, *Gusher of Lies: The Dangerous Delusions of "Energy Independence"*, (Public Affairs, 2008); and Phillip J. Deutch, Think Again: Energy Independence, December 2005; available from http://www.foreignpolicy.com/users/login.php?story_id=3262&URL=http://www.foreignpolicy.com/story/cms.php?story_id=3262; Internet; accessed 19 May 2009; and Julia A. Seymour, Energy: Mission Impossible? 24 January 2007; available from http://www.businessandmedia.org/articles/2007/20070124153716.aspx; Internet; accessed 19 May 2009.

[10] U.S. Government Accountability Office, GAO-07-283, *Highlights: Peak Oil Production*, February 2007, 4. This GAO report examined 21 different studies addressing the timing of peak oil and provides a list of each study in Appendix II therein. Estimates of how much oil remains in the ground is the subject of great debate because (i) much of the data reported is self reported, (ii) is unaudited, (iii) many parts of the world are yet to be fully explored and there is no comprehensive assessment of unconventional sources such as oil sands, oil shale and heavy oil.

[11] Ibid., 38.

[12] Ibid., 7.

[13] Ibid. The top three global producers of oil are: Saudi Arabia 12.6%, Russia 12.6% and the United States 8.0%. See, "BP Amoco Statistical Review of World Energy 2008"; available from: http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/downloads/pdf/oil_table_proved_oil_reserves_2008.pdf; Internet; accessed 21 April 2009.

[14] U.S. Energy Information Agency, International Energy Outlook 2008, (Washington, D.C. U.S. EIA April 14, 2009); available from: http://www.eia.doe.gov/oiaf/ieo/index.html; Internet; accessed 19 May 2009.

[15] See, Michael T. Klare, The End of the World as You Know It … and the Rise of the New Energy World Order; available from: http://www.tomdispatch.com/post/174919; Internet; accessed 19 May 2009.

[16] U.S. Energy Information Agency, *Table 11.10 World Petroleum Consumption, 1960-2006*, (Washington, D.C., US EIA, April 14, 2009); available from: http://www.eia.doe.gov/emeu/aer/txt/ptb1110.html; Internet; accessed 19 May 2009.

[17] U.S. Government Accountability Office, GAO-07-283, *Highlights: Peak Oil Production*, February 2007, 26. This projection comes from EIA's reference case scenario cited in footnote 14 above. To assess uncertainties in the reference case projections, EIA also runs low and high oil price scenarios, in which the projected world oil consumption in 2030 is 102 million and 128 million barrels per day, respectively.

[18] U.S. Energy Information Agency, Table 21- International Liquids Supply and Disposition Summary (Washington, D.C., US EIA, April 14, 2009); available from: http://www.eia.doe.gov/oiaf/servicerpt/stimulus/excel/aeostimtab_21.xls; Internet; accessed 19 May 2009.

[19] Michael T. Klare, "The Intensifying Global Struggle for Energy," 9 May 2009; available from: http://www.tomdispatch.com/post/2400/mike_klare_on_our_energy_stretched_planet; Internet; accessed 19 May 2009.

[20] Ibid.

[21] Ibid.

[22] U.S. Government Accountability Office, GAO-07-283, Highlights: Peak Oil Production, February 2007, 5.

[23] U.S. Chamber of Commerce - Institute for 21st Century, *A Transition Plan for Securing America's Energy Future*, (Washington, D.C. 2008), 2.

[24] "National Security Consequences of U.S. Oil Dependency," : 3.

[25] Among the key federal government agencies that contribute to energy issues and who could play a critical role in addressing domestic and foreign policy energy security matters are: the Department of Energy, the Energy Information Agency, the U.S. Geological Survey, the Department of the Interior Mineral Management Service, the U.S. Department of Agriculture, Department of Transportation, the Federal Energy Regulatory Commission, the Environmental Protection Agency, the Federal Trade Commission, Nuclear Regulatory Commission, Government Accountability Office, the Department of Commerce, the Department of Defense, the Department of Homeland Security, the Department of Labor, the Department of State, the Treasury Department, the National Petroleum Council among others.

[26] Times Topics, "Carol M. Browner", *The New York Times*, Tuesday May 26, 2009; available from: http://topics.nytimes.com/topics/reference/timestopics/people/b/carol_m_browner/index.html; Internet; accessed 26 May 2009.

[27] U.S. Government Accountability Office, GAO-07-283, Highlights: Peak Oil Production, February 2007, 35.

[28] Andrew J. Bacevich, *The Limits of Power*, Metropolitan Books, 2008.

[29] Bacevich, 9.

[30] Ibid.

[31] U.S. Congress, House of Representatives - Committee on Government Reform, *The Bush Administrations Energy Policy A Five Year Review,* May 2006; available from: http://oversight.house.gov/documents/20060516113738-56093.pdf; Internet; accessed on 18 May 2009.

[32] U.S. Energy Information Agency, Table 21- International Liquids Supply and Disposition Summary (Washington, D.C., US EIA, April 14, 2009); available from: http://www.eia.doe.gov/oiaf/servicerpt/stimulus/excel/aeostimtab_21.xls; Internet; accessed 19 May 2009.

[33] James Risen, *State of War*: *the secret history of the CIA and the Bush administration*, (Simon and Schuster 2006), 132.

[34] Mel Goodman, The Militarization of Foreign U.S. Foreign Policy, Foreign Policy in Focus, Policy Brief Vol. 9, no.1, February 2004, 2 citing Mark Twain.

[35] Secretary of Defense Robert M. Gates, "U.S. Global Leadership Campaign" lecture, July 15, 2008; available from: http://www.defenselink.mil/speeches/speech.aspx?speechid=1262; Internet; accessed on 5 May 2009.

[36] Ibid.

[37] Alan Richards, "Socio-Economic Roots of Radicalism: Towards Explaining the Appeal of Islamic Radicals", U.S. Army War College, Strategic Studies Institute (Carlisle, PA 2003), 25.

[38] Ibid., citing A.G. Ali and Ibrahim Elbadawi, "The Labor Market and Poverty in the Arab World: Some Preliminary Results"

[39] Ibid., 8.

[40] Ibid.

[41] Ibid., 6. 50% of all Arabs, 54% of all Iranians, and 52% of all Pakistanis are younger than 20 years old. 66% of all Saudis are under 25 years old and 66% of all people in the M.E. are under 30 years old.
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[42] Ibid., 20.

[43] Ibid., 21.

[44] Michael Ross, *Does Oil Hinder Democracy?* World Politics Vol. 53 (April 2001), 332.

[45] Ibid.

[46] Ibid., 333.

[47] Ibid., 334.

[48] Richards, 25.

[49] Edward L Morse, *Energy Breaks the Economic Rules*, SAISPHERE 2005, Johns Hopkins University Press; available from: www.sais-jhu.edu.pubaffairs/publications/saishere/winter05/morse.html; Internet; accessed 15 May 2008.

[50] One author suggests that the reason for the volatility of the price of oil following the 1973 oil embargo is explained by the nationalization of oil companies, noting greater price predictability while the major oil companies were in charge. See, Charles F. Doran, Oil Politics Is World Politics, SAISHPERE,

2005 available at www.sais-jhu.edu/pubaffirs/publications/saisphere/Winter05/doran.html Internet; Accessed 15 May 2008, 2.

[51] John m. Polimeni, Kozo Mayumi, Mario Giampietro, Blake Alcott, *Jevons Paradox and the Myth of Resource Efficiency Improvements*, (Earthscan 2008).

[52] Ibid., 3.

[53] Ibid., 88.

[54] Amory Lewis, et al."Winning the Oil Endgame: Innovation for Profits, Jobs and Security" (Rocky Mountain Institute, 2005)

[55] Ibid.

[56] U.S. Government Accountability Office, GAO-07-283, Highlights: Peak Oil Production, February 2007, 38.

[57] See footnote 26 above.

[58] Lael Brainard Derek Chollet and Vinca LaFluer, Chapter 1, *The Tangled Web: The Poverty-Insecurity Nexus*, *Too Poor for Peace*, (The Brookings Institution, 2007) 23.

[59] See, Richard Armitage & Joseph Nye, *CSIS Commission on Smart Power: A Smarter, More Secure America, (*CSIS Press 2007), 17. A Zogby poll of five Middle Eastern countries (Saudi Arabia, Egypt, Morroco, Jordan and Lebanon) from late 2006 found a majority in all five reported that their opinion of the U.S. had gotten worse in the preceding year.

[60] Armitage and Nye, 23.

[61] The term "Smart Power" was first coined by Suzanne Nossel in an article of the same name in a 2004 issue of *Foreign Affairs*. Joseph Nye, the former Dean of Harvard's John F. Kennedy School of Government and the father of the term "Soft Power," picked up on the term and in 2007 when he and Richard Armitage led a Smart Power study for the Center for Strategic & International Studies (CSIS). The result was an 82 page report titled, *CSIS Commission on Smart Power: A Smarter, More Secure America.* The term was made more prominent in January 2009 when Secretary of State nominee, Hillary Clinton, asserted that the U.S. must use Smart Power to carry our its foreign policy objectives. CSIS study available at: http://www.csis.org/component/option,com_csis_progj/task,view/id,1129/; Internet; accessed 18 May 2009.

[62] Armitage and Nye, 7.

[63] Cheryl Pellerin, "Foreign Policy's "Smart Power" Gives Science Diplomacy a New Role, February 13, 2009; available from: http://www.america.gov/st/scitech-english/2009/February/20090213100705lcnirellep0.1312372.html; Internet; accessed 18 May 2009.

[64] Armitage and Nye, 7.